

ONE NEW CAVE-DWELLING *PLATOCOELOTES* SPIDER (ARANEAE, AGELENIDAE) FROM CHONGQING, CHINA

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Abstract One new cave-dwelling *Platocoelotes* species, *P. zhuchuandiani* sp. nov. from Chongqing, China, is described. The type specimens are deposited in the Institute of Zoology, Chinese Academy of Sciences in Beijing (IZCAS).

Key words Taxonomy, Coelotinae, description, diagnosis.

The genus *Platocoelotes*, established and revised by Wang (2002; 2003), contains 16 species, including 15 recorded in China (Platnick, 2011). Most *Platocoelotes* are cave-dwelling species (Xu & Li, 2007; Liu & Li, 2008; Yin & Xu, 2010). The current paper reports a new *Platocoelotes* spider.

Specimens were examined with an Olympus SZ11 stereomicroscope; details were studied with an Olympus BX41 compound microscope. All illustrations were made using an Olympus drawing tube. Male palps and female epigyna were examined and illustrated after being dissected from the spider bodies.

All measurements were obtained using an Olympus SZ11 stereomicroscope and are given in millimeters. Eye diameters are taken at the widest point. The total body length does not include the length of the chelicerae or spinnerets. Leg measurements are given as: total length (femur, patella + tibia, metatarsus, tarsus). Only structures (e.g., palps, legs) of the left side body were described and measured. The terminology used in text and figure legends follows Wang (2002). Abbreviations used in text and legends: A = atrium; ALE = anterior lateral eye; AME = anterior median eye; AME – ALE = distance between AME and ALE; AME – AME = distance between AME and AME; ALE – PLE = distance between ALE and PLE; C = conductor; CD = copulatory duct; DCA = dorsal conductor apophysis; CF = cymbial furrow; VCA = ventral conductor apophysis; E = embolus; FD = fertilization duct; LTA = lateral tibial apophysis; PA = patellar apophysis; PLE = posterior lateral eye; PME = posterior median eye; PME –

PLE = distance between PME and PLE; PME – PME = distance between PME and PME; RTA = retrolateral tibial apophysis; S = spermatheca; ST = subtegulum; T = tegulum; TS = tegular sclerite.

All types are deposited in the Institute of Zoology, Chinese Academy of Sciences in Beijing (IZCAS).

Platocoelotes zhuchuandiani sp. nov. (Figs 1–13)

Holotype male, China, Chongqing, Gandong Cave, 9 Dec. 2008, Arthur Clarke leg. Paratypes 2 female, same data as holotype.

Etymology. The specific name is in honor of late Professor ZHU Chuan-Dian (1925–2003), who is a pioneer arachnologist in China; noun.

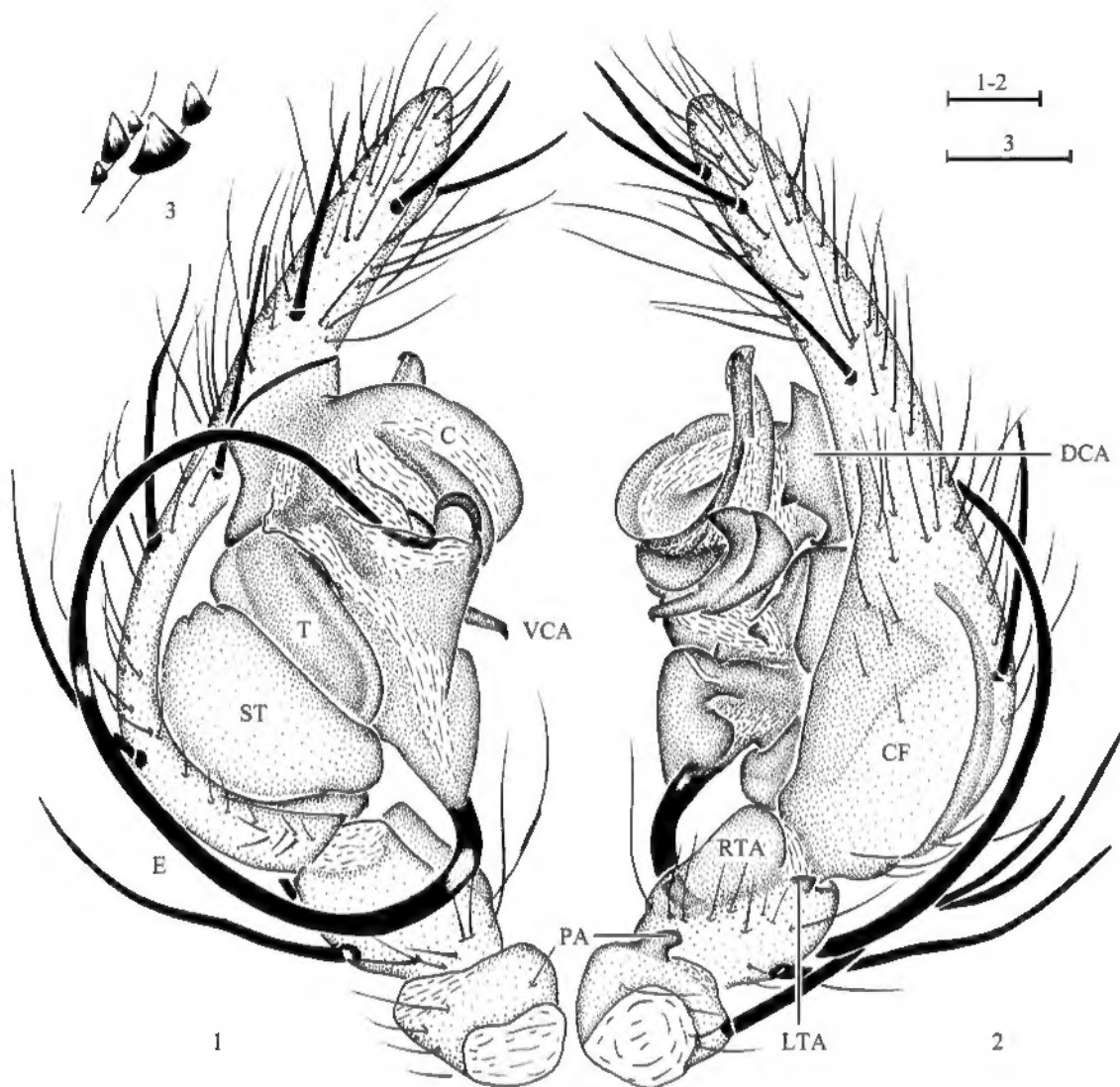
Diagnosis. This new species can be distinguished from other *Platocoelotes* species by the short ventral dorsal conductor (VCA) in the male and the triangular-shaped atrium in the female (Figs 1–2, 4–6, 8–10, 12–13).

Description. Male. Total length 5.35. Prosoma length 2.75, width 2.30; opisthosoma length 2.60, width 1.80. Eye measurements: AME 0.10; ALE 0.15; PME 0.15; PLE 0.15; AME – AME 0.01; AME – ALE 0.01; PME – PME 0.05; PME – PLE 0.05. PLE and ALE close together. Clypeus height 0.21. Leg formula: 4123; leg measurements: I: 13.8 (3.50, 4.60, 3.45, 2.25); II: 12.50 (3.25, 4.00, 3.25, 2.00); III: 11.60 (3.10, 3.50, 3.35, 1.65); IV: 16.05 (4.00, 4.75, 5.00, 2.30). Chelicerae with three promarginal and two retromarginal teeth. Patellar apophysis small; the distal end of RTA blunt, not extending beyond distal margin of tibia; lateral tibial apophysis small, slightly separated from RTA; cymbial furrow about one third of cymbium length; conductor developed, distinctly

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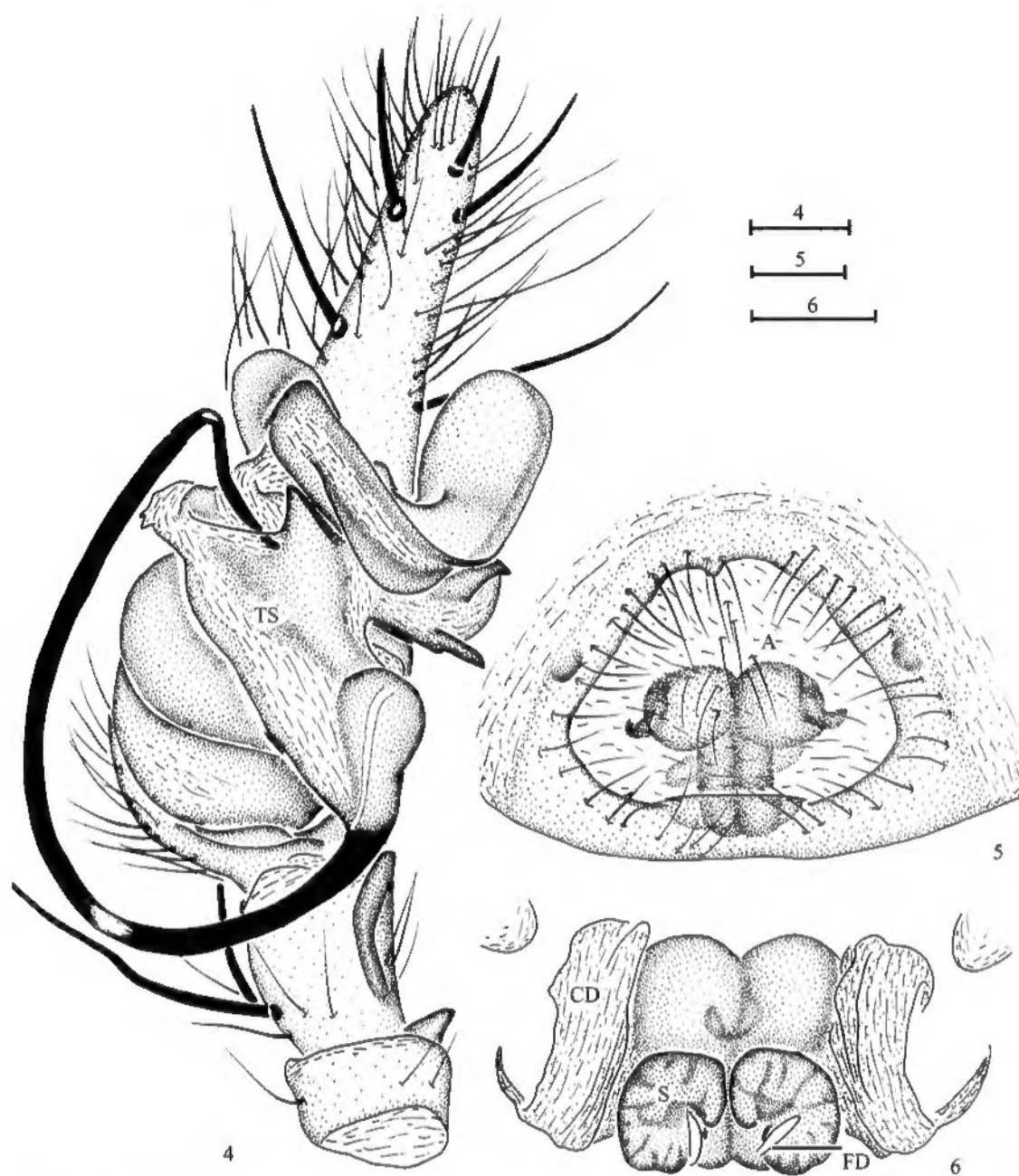
Figs 1–3. *Platocoelotes zhuchuandiani* sp. nov. 1. Left male palp, prolateral view. 2. Left male palp, retrolateral view. 3. Male cheliceral teeth, ventral view. Scale bars = 0.2 mm.

curved, almost V-shaped in ventral view; dorsal conductor apophysis distinct; ventral conductor apophysis short, with distal end distinctly sharp; embolus long, originating prolaterally (Figs 1–4, 8–10).

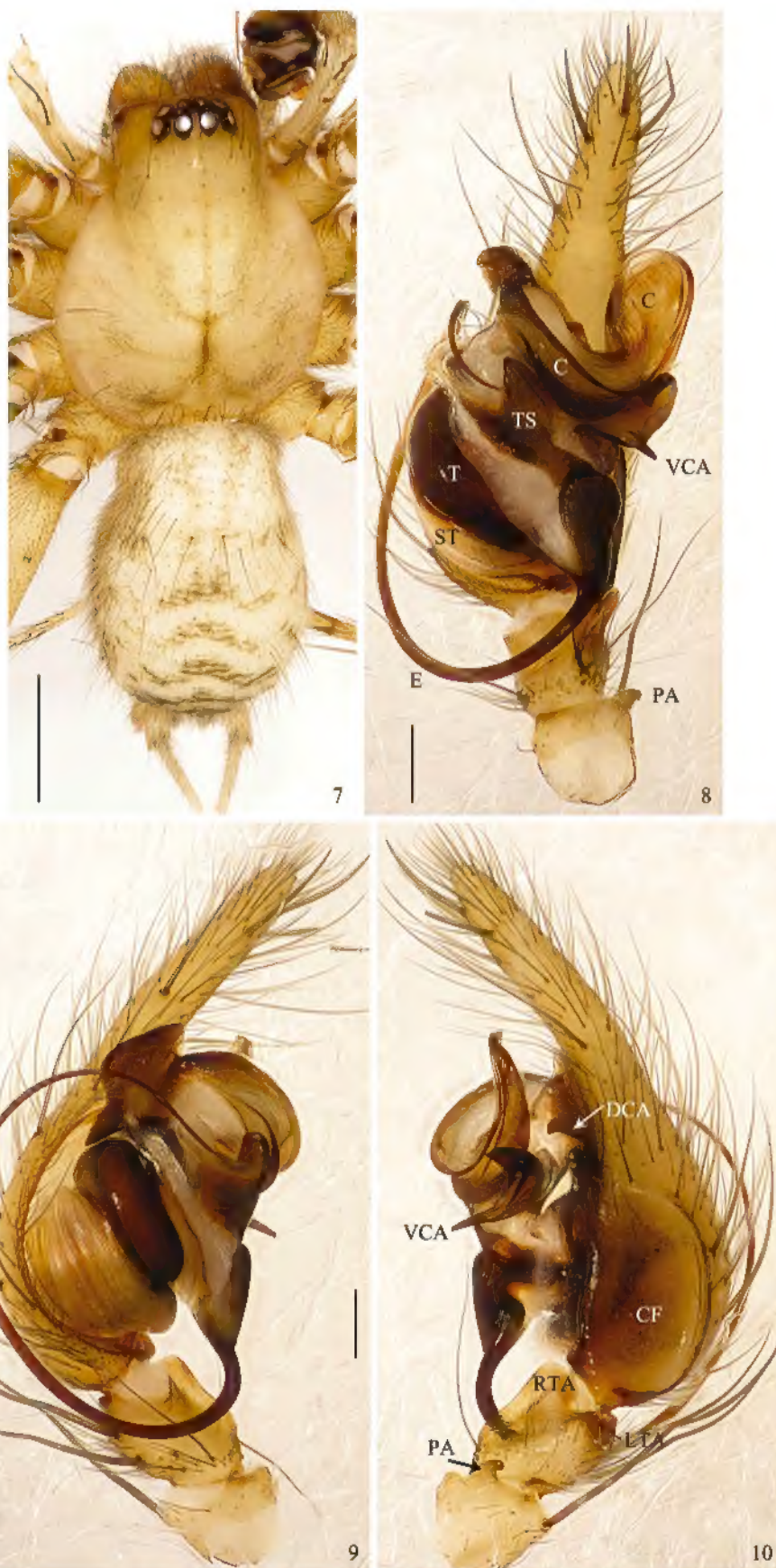
Female. Total length 5.1. Prosoma length 2.65, width 1.95; opisthosoma length 2.45, width 1.65. Eye measurements: AME 0.08; ALE 0.15; PME 0.15; PLE 0.15; AME – AME 0.01; AME – ALE 0.01; ALE – PLE 0; PME – PME 0.05; PME – PLE 0.03. Clypeus height 0.19. Leg formula: 4123; leg

measurements: I: 11.30 (2.95, 3.70, 2.75, 1.90); II: 9.80 (2.75, 3.25, 2.40, 1.40); III: 9.30 (2.35, 2.95, 2.50, 1.50); IV: 12.25 (3.00, 4.00, 3.60, 1.65). Chelicerae with three promarginal and two retromarginal teeth. Epigynum with a large, triangular-shaped atrium, which occupies more than two thirds of epigynum; epigynal hoods indistinct; copulatory ducts large, originating posteriorly; spermathecae simple, close together; spermathecal heads invisible in dorsal view (Figs 5–6, 12–13).

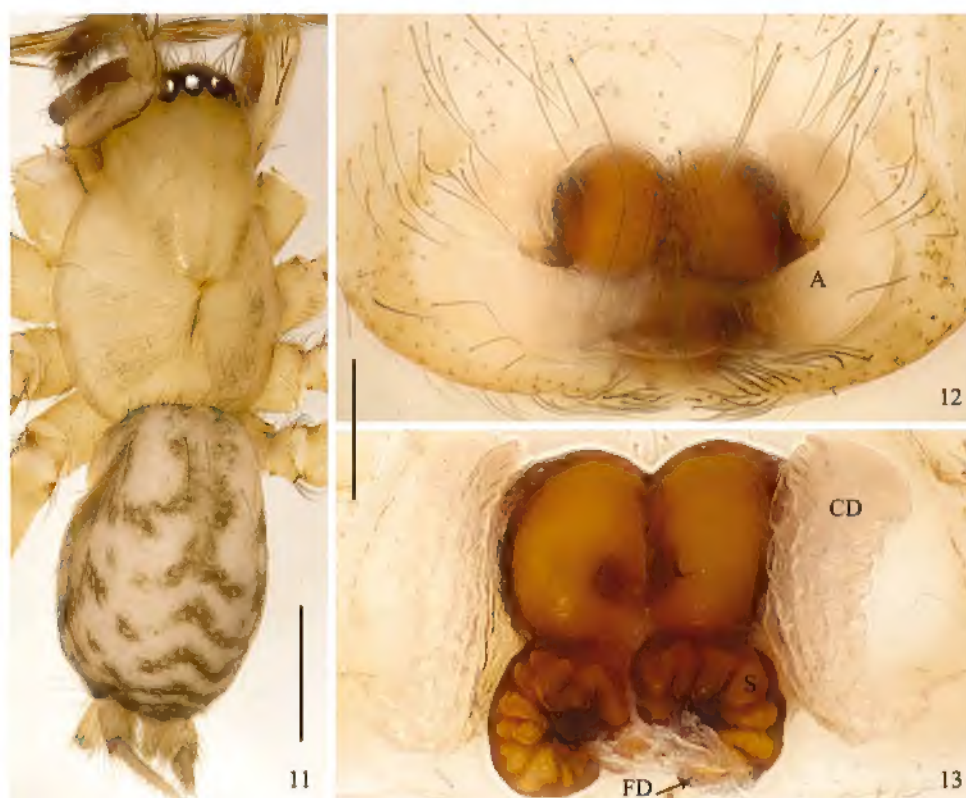
Distribution. China (Chongqing).



Figs 4 - 6. *Platocoelotes zhuchuandiani* sp. nov. 4. Left male palp, ventral view. 5. Female epigynum, ventral view. 6. Female vulva, dorsal view. Scale bars = 0.2 mm.



Figs 7 – 10. *Platocoelotes zhuchuandiani* sp. nov. 7. Male body, dorsal view. 8. Left male palp, ventral view. 9. Left male palp, prolateral view. 10. Left male palp, retrolateral view. Scale bars: 7 = 1 mm; 8 – 10 = 0.2 mm.



Figs 11–13. *Platocoelotes zhuchuandiani* sp. nov., ♀. 11. Body, dorsal view. 12. Epigynum, ventral view. 13. Vulva, dorsal view. Scale bars: 11 = 1 mm, 12–13 = 0.2 mm.

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中国重庆宽隙蛛属一新种记述 (蜘蛛目, 漏斗蛛科)

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摘要 描述了采自重庆的隙蛛亚科蜘蛛1新种, 朱氏宽隙蛛 *Platocoelotes zhuchuandiani* sp. nov.

朱氏宽隙蛛, 新种 *Platocoelotes zhuchuandiani* sp. nov. (图1~13)

关键词 分类, 隙蛛亚科, 描述, 鉴别.

中图分类号 Q959.226

正模 ♂, 副模 2♀, 重庆市干洞, 2008年11月9日, Arthur Clarke 采。

词源: 新种种名源自朱传典教授的姓名, 以示对朱传典教授作为中国蜘蛛分类研究开拓者的敬意。

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